



## Local Area Network for IBM Personal Computers



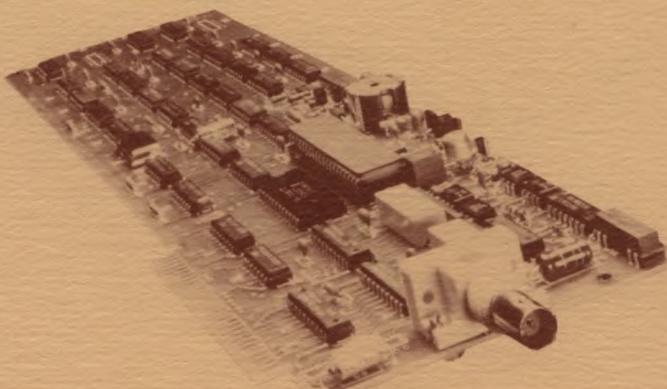
Santa  
Clara  
Systems, Inc.

# PCnet is the first Local Area Network designed specifically for the IBM Personal Computer and its PC-DOS Operating System

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## FEATURES

- CSMA/CD, Base Band Local Area Network
- Disk Sharing
- File Locking
- PC Sharing (multi-tasking)
- Printer Sharing
- Uses standard 75 ohm CATV coaxial cable
- Network cable can run up to 7,000 feet
- Transmits data at a rate of 1Mbps
- Designed for compatibility with all existing and future IBM compatible hard disks
- Capable of handling up to 64,000 PCs on a network



## Why connecting with our PCnet makes good business sense.

More efficient than general, all-purpose networks, PCnet is limited only by the total cable length within the network.

Not by the number of PCs. In fact, you can interconnect thousands of PCs with PCnet. As you grow, so grows the system. PCnet is tailored to you. To your immediate needs, as well as to your projected uses. And should a PC go down, the others won't. Each individual PC remains productively independent.

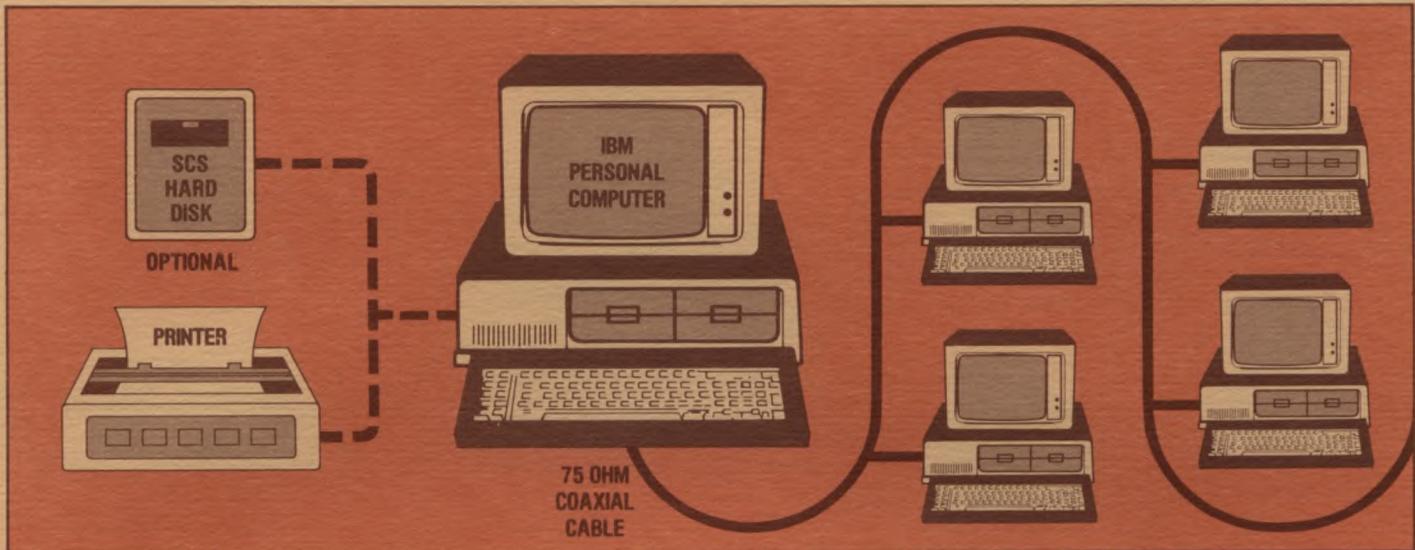
With PCnet interconnecting your microcomputers, cost-intensive resources like hard disk units and letter quality printers can be shared. And that means your per station costs are reduced. The same can be said for floppy disks. And modems. And internal memory.

Total user convenience is a solid business argument in favor of PCnet. You can also share files, programs, etc. among cooperating users. And if all files are stored on a shared disk, you're able to centralize backup facilities and procedures. Plus, you can take full advantage of our complete line of hard-disk storage products tailor-made to complement PCnet.

And PCnet allows you to increase the range of applications handled by your microcomputers. Networked micros build multi-user systems, a job traditionally reserved and performed by minicomputers. Now, however, initial costs are reduced and the system can easily expand as required for increased workloads.

You'll also appreciate the specialized network utilities like print spooling, multi-tasking, file-locking and communication with IBM PC look-alikes, along with the DOS Bubble which supports the P-System.

The PCnet. Local Area networking that makes good business sense because it makes good business connections.



### Add more stations without adding more hardware. PCnet makes it easy.

No extra hardware is required to add more stations. Absolutely not. Just one PCnet board for each and you're connected. You're on-line and ready to go. To "pre-wire" an entire work area, the network cable is a standard 75 ohm TV-type coaxial cable that runs in a single line throughout the area where networked PCs are installed. The cable can run up to 7000 feet, allowing PCs to be added to the network or moved easily within the network area.

Simply stated, when you're hooked into PCnet, you're plugged into powerful productivity.

### Software that delivers disk sharing, file-locking and multi-tasking. Again, PCnet makes it all so smooth, so easy.

Software that delivers the performance you demand, software that integrates the network into PC-DOS. And because the PC-DOS interface is designed so standard single-user PC applications can use the network without change, more advanced multi-user systems can be developed from single-user systems with minor modifications.

Disk-sharing, for example, allows PCs to share hard-disks installed in other PCs. There is no lack of storage capacity. And the shared or networked disks appear to be locally attached.

For multi-PC installation, this sharing is immediately useful. It provides each user with the capacity and speed of a hard-disk at a lower cost than the hard-disk per user alternative.

What's more, it simplifies the backup problem. Only the shared disk needs to be backed up and this one backup can cover all users' data.

To perform the initial system boot, each user PC only needs one diskette drive. In addition, users can be allowed to examine other users' data files and transfer files between shared and local storage.

File-locking in a multi-user, multi-PC application is also addressed. The sharing of common data files demands that a mechanism ensures common files are only accessed by one user at a time. The PC-DOS interface includes function calls to lock and unlock files by name or both name and record number. Using these calls, it is relatively simple to convert a single user application to multi-user.

In order to share expensive resources such as printers or communication lines — and to perform multi-tasking — the PCnet provides for "remote execution." This allows a user on one PC to run a command on another PC as if the command had been entered on that PC's keyboard. Through remote execution, one PC with specialized peripherals can act as an "execution server" for other PCs and print files, assemble programs and format text while the user is performing other work.

Remote execution is also useful for multi-PC applications which can be split into data entry and update/report sections.

Start-to-finish, PCnet software provides productive utilities that keep you solidly connected.

## **Applications that keep your PCnet connected.**

Applications like Device-Sharing. This gives each PC the capacity and speed of a hard-disk for a fraction of its cost. It centralizes backup and provides program and file-sharing; users can share peripherals such as letter quality printers.

Another application is the Multi-PC System. Here, a single-user system is modified to lock or unlock common files during access and becomes multi-user. Superior to traditional, shared minicomputer systems, Multi-PC systems allow memory and processing capacity to expand as users are added.

The Mainframe Program Development is an application using a network of PCs to develop mainframe software. One PC acts as a multiplexer containing the hard disk, transferring job and results to and from the host — transfers and host execution can be remotely controlled by each PC.

The end result? Intelligent applications that are just the beginning of your successful PCnet communication connection.

## **PCnet and you. And us and worldwide support and warranties and why we work the way we do.**

At Santa Clara Systems we put the whole PCnet working package together. No loose ends. No if's or and's or but's or maybe's.

We do provide PCnet as a complete and very flexible microcomputer networking system designed specifically for the IBM PC. It presents you with a low-cost system of high-performance power, productivity and simplicity. PCnet is a system designed for smooth integration, a system of extreme flexibility. A friendly, easy-to-use system.

An intelligent, working system geared to you.

We'll work directly with you to define what PCnet can or can't do. We'll present recommendations, suggestions, alternatives and direction.

We offer worldwide support. In major markets. In major countries. From Boston to Brussels. Manhattan to Munich.

And, of course, we believe in product warranties. We offer you a full 1-year warranty.

We also offer a complete line of hard-disk storage products tailor-made for use with the PCnet, featuring up to a 1/2 gigabyte of storage per PC and removable Winchester cartridges for backup.

At Santa Clara Systems we work toward your success, we work to your benefit. Because ultimately, your success is our success. It's that simple.

We invite your inquiry on how we can develop the right system for your specific requirements. For your immediate networking, we offer a starter kit of two PCnet boards, software, cable and documentation.

For further information on how Santa Clara Systems and the PCnet connection can network for you, please telephone or write: Santa Clara Systems, Inc., 1860 Hartog Dr., San Jose, CA 95131 (408) 287-4640/Telex: 176309 SCS SNJ.

### **Fits Into Single I/O Slot**

<b>Power:</b>	+ 5 VDC Max 1.00 Amps + 12 VDC Max 0.15 Amps - 12 VDC Max 0.10 Amps
<b>Environmental:</b>	Operating temperature 0° to 55° C. Storage temperature 0° to 70° C. Relative Humidity 0% to 90% non-condensing
<b>PC Interface:</b>	Uses interrupt lines 2 & 3/2 & 5 DMA Channel #1 Port Address 380-38F Hex Software interrupts 60-6F Hex, inclusive
<b>Distance:</b>	Up to 7000 feet Addressable No. of Users: 64,000 +
<b>Cabling:</b>	75 ohm terminated coaxial (Standard CATV) RG 59B/U (up to 3000 feet) RG 11/U (up to 7000 feet)
<b>Transmission Speed:</b>	1 Megabit/second
<b>Hard Disks:</b>	Unlimited number
<b>Printers:</b>	Unlimited number
<b>Modems:</b>	Unlimited number
<b>Servers:</b>	No special server required for disk drives, printers, modems or any other peripherals.

### **PRODUCT ENHANCEMENT FEATURES**

1. **GENERAL FILE SERVER:** Allows any SCS hard disk subsystem to interface directly with the network, eliminating the need for a host PC.
2. **GATEWAY:** Interconnect PCnet to other networks such as Ethernet and IBM 327X.
3. **PC TERMINAL LINK:** Low cost IBM compatible computer which will operate in conjunction with the network.
4. **DISK CACHE:** Additional memory resident on a hard-disk host interface card which allows network user to off-load data faster. Thus, speeding up the network I/O activity.
5. **TERMINAL SUPPORT:** Software which allows up to 8 computers or dumb terminals to be attached to each network node and access the network.



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